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EXAMINER

SHINGLES, KRISTIE D

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/718,743	Applicant(s) DUARTE ET AL.	
	Examiner KRISTIE D. SHINGLES	Art Unit 2441	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendments

Claim 23 has been amended.

Claims 2, 3, 10-22 and 29-40 have been canceled.

Claims 1, 4-9 and 23-28 are pending.

Response to Arguments

I. Applicant's arguments with respect to claims 1 and 23 have been considered but are not persuasive.

Applicant argues that the 35 U.S.C. 103(a) rejection made under *Finke-Anlauff* (US 6,850,226) in view of *Saarinen* (US 6,882,335) and *Ostergard et al* (US 6,803,903) is improper because there is no motivation to combine the *Finke-Anlauff* and *Ostergard et al* references.

Examiner respectfully disagrees. As stated in the previous Office Action, *Finke-Anlauff* teaches an actuation switch that triggers the applications associated with each screen orientation (*col.4 lines 23-37*) and all of the limitations in claim 1 except the feature:

...wherein at least one of the plurality of control elements includes: a first plurality of glyphs on a corresponding plurality of physical keys of an alphanumeric keyboard, each of the first plurality of glyphs representing a designated one of the first specified functions, the first plurality of glyphs being highlighted when the data processing device is in the first operational mode and a second plurality of glyphs on the plurality of physical keys of the alphanumeric keyboard, each of the second plurality of glyphs representing a designated one of the second specified functions, the second plurality of glyphs being highlighted when the data processing device is in the second operational mode, wherein the data processing device automatically highlights the first plurality of glyphs when in the operational mode and automatically highlights the second plurality of glyphs when in the second operational mode wherein at least one of the first and second plurality of glyphs is highlighted when illuminated from an optical source.

However, the *Saارين* reference teaches a graphic symbol or icon associated with the operational mode and orientation of the device, wherein the symbol/icon is activated and displayed in response to the portrait/landscape switching signal corresponding to the portrait/landscape mode of the device (*col.5 lines 13-38, col.9 lines 34-47, col.9 line 60-col.10 line 15, col.16 lines 5-40*). *Saارين* further teaches that the particular symbols on the keyboard are activated using an infrared beam matrix when the display is configured in the landscape or portrait mode (*col.15 line 65-col.16 line 12*). Nonetheless, *Ostergard et al* explicitly teach the highlighting of a first and second plurality of glyphs, illuminated from an optical source such as a light-emitting source powered by electrodes on the device (*Figures 6a and 6b, col.5 lines 14-53, col.5 line 58-col.6 line 2, col.6 lines 30-54*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Finke-Anlauff* with *Saارين* and *Ostergard et al* for the purpose of providing mode glyphs/indicators associated with the respective orientation and operating mode of the device and illuminated by optical sources resident on the device; because this provides a illumination for displaying to the user a mode identification means by visually informing the user (via a symbol/icon/glyph/graphic) of the device's present operating mode and indicating the respective key functions associated with each operating mode.

The combination of the *Finke-Anlauff*, *Saارين* and *Ostergard et al* reference suggest to one of ordinary skill in the art that the highlighted glyph functions, and different modes of operation based on the device orientation were features known and implemented in the art at the time of the invention. Thus the combination of these features on a single device would have been obvious and enabling for a multi-functional device which includes the operation of a

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telephone and PDA based on the orientation of the device. Applicant's argument that the references are "not readily combinable" because in the *Finke-Anlauff* reference, "the alphanumeric keyboard is covered and inaccessible to users in the telephone mode of operation" fails to take into account that the device has more function keys/buttons in addition to the alphanumeric keyboard. So the highlighting of different keys on the device based on the current mode, extends to all of the function keys/button on the device, not just the text keyboard (*col.2 lines 35-47*). Thus it would be obvious to one of ordinary skill in the art to understand that the highlighted glyphs are not limited to the text keyboard, but are also on the function keys/buttons. So the inaccessibility of certain keys/keyboard does not necessarily prevent the accessibility of a feature's functionality, but moreover triggers the actuation of the other keys/buttons that can also provide that particular functionality (*col.3 line 41-col.4 line 3*). Applicant's arguments are unpersuasive, therefore the rejection under the prior art of record is maintained.

CLAIM REJECTIONS - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

III. **Claims 1, 4 – 8 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Finke-Anlauff* (US 6,850,226) in view of *Saarinen* (US 6,882,335) and *Ostergard et al* (US 6,803,903).**

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a. **Per claim 1**, *Finke-Anlauff* teaches a data processing device having a first operational mode and a second operational mode, the data processing device comprising:

- a plurality of control elements to perform a first plurality of defined functions when the data processing device is in the first operational mode and to perform a second plurality of defined function when the data processing device is in the second operational mode, wherein (*Figures 1-7, col.1 line 38-col.2 line 3, col.3 line 41-col.4 line 36—provision for control elements that perform specific functions in a telephone mode, PDA mode and camera mode*),
- the first operational mode is associated with a first physical orientation of the data processing device and the plurality of control elements and the second operational mode is associated with a second physical orientation of the data processing device and the plurality of control elements (*Figures 1-7, col.1 line 38-col.2 line 3, col.3 line 41-col.4 line 36—the telephone mode is associated with one sliding orientation of the display screen and the PDA mode is associated with a different sliding orientation of the display screen*).
- wherein the images generated by the data processing device include menus and/or user interface elements, and wherein functions performed by the menus and/or user interface elements are modified to reflect switching between the first operational mode and the second operational mode (*col.1 line 40-col.2 line 3, col.3 lines 27-41, col.4 lines 22-36*).

Finke-Anlauff further teaches an actuation switch that triggers the applications associated with each screen orientation (*col.4 lines 23-37*), yet fails to explicitly teach wherein at least one of the plurality of control elements includes: a first plurality of glyphs on a corresponding plurality of physical keys of an alphanumeric keyboard, each of the first plurality of glyphs representing a designated one of the first specified functions, the first plurality of glyphs being highlighted when the data processing device is in the first operational mode and a second plurality of glyphs on the plurality of physical keys of the alphanumeric keyboard, each of the second plurality of glyphs representing a designated one of the second specified functions, the second plurality of glyphs being highlighted when the data processing device is in the second operational mode, wherein the data processing device automatically highlights the first plurality

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of glyphs when in the operational mode and automatically highlights the second plurality of glyphs when in the second operational mode wherein at least one of the first and second plurality of glyphs is highlighted when illuminated from an optical source. However, *Saarinen* teaches a graphic symbol or icon associated with the operational mode and orientation of the device, wherein the symbol/icon is activated and displayed in response to the portrait/landscape switching signal corresponding to the portrait/landscape mode of the device (*col.5 lines 13-38, col.9 lines 34-47, col.9 line 60-col.10 line 15, col.16 lines 5-40*).

Saarinen further teaches that the particular symbols on the keyboard are activated using an infrared beam matrix when the display is configured in the landscape or portrait mode (*col.15 line 65-col.16 line 12*). Nonetheless, *Ostergard et al* explicitly teach the highlighting of a first and second plurality of glyphs, illuminated from an optical source such as a light-emitting source powered by electrodes on the device (*Figures 6a and 6b, col.5 lines 14-53, col.5 line 58-col.6 line 2, col.6 lines 30-54*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Finke-Anlauff* with *Saarinen* and *Ostergard et al* for the purpose of providing mode glyphs/indicators associated with the respective orientation and operating mode of the device and illuminated by optical sources resident on the device; because this provides a illumination for displaying to the user a mode identification means by visually informing the user (via a symbol/icon/glyph/graphic) of the device's present operating mode and indicating the respective key functions associated with each operating mode.

b. **Claim 23** contains limitations which are substantially equivalent to the limitations of claim 1 and is therefore rejected under the same basis.

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c. **Per claim 4**, *Finke-Anlauff* with *Saarinen* and *Ostergard et al* teach the data processing device in claim 1, *Saarinen* further teaches wherein each of the first glyphs are positioned on each of the control elements in a first orientation corresponding to the first orientation of the data processing device and each of the second glyphs are positioned on each of the control elements in a second orientation corresponding to the second orientation of the data processing device (*col.16 lines 5-29, col.5 lines 13-38; Ostergard et al—Figures 6a and 6b, col.6 lines 30-54*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Finke-Anlauff* with *Saarinen* and *Ostergard et al* to provide glyphs on control elements since the control elements are multifunctional and have different functions depending on the orientation of the device and depending on the applications that are activated.

d. **Claim 24** is substantially equivalent to claim 4 and is therefore rejected under the same basis.

e. **Per claim 5**, *Finke-Anlauff* with *Saarinen* and *Ostergard et al* teach the data processing device as in claim 4, *Finke-Anlauff* further teaches wherein the first orientation is rotated 90 degrees relative to the second orientation (*Figures 1-7, col.2 line 58-col.3 line 12, col.3 lines 27-34; Saarinen—Figures 2-4, col.8 lines 51-53*).

f. **Claims 25 and 26** are substantially equivalent to claim 5 and are therefore rejected under the same basis.

g. **Per claim 6**, *Finke-Anlauff* with *Saarinen* and *Ostergard et al* teach the data processing device as in claim 1, *Finke-Anlauff* further teaches wherein the first operational mode comprise: a data entry mode and wherein the second operational mode comprises a telephony

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mode wherein the data processing device performs telephony-based functions (*Figures 1-7, col.1 line 38-col.2 line 3, col.2 line 36-47; Saarinen—col.10 lines 34-58; Ostergard et al—Figures 6a and 6b, col.6 lines 30-54*).

h. **Per claim 7**, *Finke-Anlauff* with *Saarinen* and *Ostergard et al* teach the data processing device as in claim 6, *Finke-Anlauff* further teaches wherein when in the telephony mode, the second specified function for a group of the control elements is that of a numeric keyboard for entering telephone numbers (*Figure 1, col.1 lines 59-63, col.3 lines 54-60; Saarinen—col.10 lines 49-51; Ostergard et al—Figures 6a and 6b, col.6 lines 30-54*).

i. **Claim 27** is substantially equivalent to claim 7 and is therefore rejected under the same basis.

j. **Per claim 8**, *Finke-Anlauff* with *Saarinen* and *Ostergard et al* teach the data processing device as in claim 7, *Finke-Anlauff* further teaches wherein, when in the data entry mode, the first specified function for a group of the control elements is that of a cursor control keypad (*Figures 3-4, col.1 lines 38-58, col.2 lines 36-57; Saarinen—col.10 lines 52-55; Ostergard et al—Figures 6a and 6b, col.6 lines 30-54*).

k. **Claim 28** is substantially equivalent to claim 8 and is therefore rejected under the same basis.

IV. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Finke-Anlauff* (US 6,850,226) in view of *Saarinen* (US 6,882,335) and *Ostergard et al* (US 6,803,903) in further view of *Enger et al* (US 2005/0020325).

Per claim 9, *Finke-Anlauff* with *Saarinen* and *Ostergard et al* teach the data processing device as in claim 1 as applied above. *Finke-Anlauff* with *Saarinen* and *Ostergard et al* all teach control elements including keyboard/keypad input comprising buttons, yet fail to explicitly teach

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wherein the plurality of control elements includes a control wheel for moving a graphical cursor element when rotated in either the first operational mode and/or the second operational mode. However, *Enger et al* teaches various input types including a trackball, joystick, and/or rotating dials for use in the different operational modes of the device (*page 5-6 paragraph 0052*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Finke-Anlauff*, *Saarinen* and *Ostergard et al* with *Enger et al* in order to provide additional control elements for input in order to give the user better control and ease when using the device.

Conclusion

V. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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VI. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTIE D. SHINGLES whose telephone number is (571)272-3888. The examiner can normally be reached on Monday 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie D. Shingles
Examiner
Art Unit 2441

/KDS/
/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444